

REMARKS

By the present Amendment, claims 1-11 are cancelled and claims 12-23 are added. This leaves claims 12-23 pending in the application, with claim 12 being independent.

Substitute Specification

The specification is revised to avoid the objections raised in the Office Action and to eliminate grammatical and idiomatic errors in the originally presented specification. The number and nature of the changes made in the specification would render it difficult to consider the case and to arrange the papers for printing or copying. Thus, the substitute specification will facilitate processing of the application. The substitute specification includes no “new matter”. Pursuant to M.P.E.P. § 608.01(q), voluntarily filed, substitute specifications under these circumstances should normally be accepted. A marked-up copy of the original specification is appended hereto.

Rejections Under 35 U.S.C. § 103, Second Paragraph

Claim 12 combines original claims 1, 2 and 9, covers a cooling device having a cooling unit 10 cooling a fluid flowing through it and a filter unit 12 for filtering the fluid. The cooling unit includes a cooling housing 18 with at least one overhanging support arm 14 with a cover part 42. The filter unit is coupled to the cooling housing by the support arm, and has a filter housing 32 with a filter element in it, which filter housing is coupled to the cover part. First and second fluid guides are arranged in the support arm. The first guide 34 conveys filtered fluid from the filter unit to the cooling unit. The second fluid guide 28 conveys unfiltered fluid from the cooling unit to the filter unit. Such guides are encased within one other or extend laterally next to one another in the support arm.

By forming the cooling unit in this manner, the device is compact and lightweight in design, eliminates the need for complex external piping systems connecting the cooling unit and the filter unit and facilitates replacement of the filter element in the filter housing by connection and disconnection of the filter housing from the cover part. This compact and lightweight design, as well as the elimination of the complex piping, is provided particularly by the first and second guides in the support arm for conveying filtered fluid from the filter unit to the cooling unit and from the cooling unit to the filter unit, respectively. Such arrangement is not disclosed or rendered obvious by any of the cited patents.

Claims 1-4 stand rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 6,105,660 to Knurr. The Knurr patent is cited for a cooling unit 43 having a filter unit 39 connected to the cooling unit housing by an overhanging arm (see Figs. 4 and 5) for carrying fluid between the filter unit and the cooling unit. The overhanging support arm is interpreted as including a cover part for supporting the filter housing 39 with the filter element. The cooling unit is alleged to be a plate-shaped finned radiator. The filter unit is alleged to be located in the direction of flow of fluid downstream from the cooling unit and to be held by the overhanging support arm to extend along the longitudinal side of the fin radiator.

Claim 5 stands rejected under 35 U.S.C. §103 as being unpatentable over the Knurr patent. The Knurr cooling unit is interpreted as being a box-shaped housing. Although not specifically disclosed in the Knurr patent, the use of sheet metal is considered to be obvious.

Claim 10 stands rejected under 35 U.S.C. §103 as being unpatentable over the Knurr patent in view of U.S. Patent No. 5,374,355 to Habiger. The Habiger patent is cited for an oil filter with a cover part provided along a retaining ring with an inside thread for connecting the

pot-like filter housing 13 with an outside thread 12. In support of the rejection, it is alleged that it would be obvious to use the Habiger screw thread to secure the Knurr oil filter.

Claim 11 stands rejected under 35 U.S.C. §103 as being unpatentable over the Knurr patent in view of DE 100 98 864 to Pohl. The Pohl patent is cited for using a fouling indicator on an oil filter, which is considered obvious to add to the Knurr system.

Claims 6-9 stand rejected under 35 U.S.C. §103 as being unpatentable over the Knurr patent in view of U.S. Patent No. 5,513,732 to Goates. The Goates patent is cited for a cooling unit having a check valve and a thermo bypass valve which are considered obvious to add to the Knurr cooling unit.

Claim 12 is patentably distinguishable over the cited patents, particularly the Knurr patent by the first and second fluid guides in the support arm formed as part of the cooling housing and having a cover part attaching the filter housing with its filter element to the cooling unit.

The Knurr patent discloses an oil cooler having a cooler 14 and with a fluid filter 39 connected to the cooler 14 by an unnumbered external fitting on the cooler. The top member of fluid filter 39 appears to have a sleeve member that fits on that cooler fitting to attach the cooler and the filter. A flexible hose 38 extends from the filter housing top member diametrically opposite the cooler fitting. In operation, fluid flows through hose 37 into the cooling manifold 32 and then across the cooler coil 43 to manifold 41. From the manifold 41, it flows through the filter 39 and out hose 38 (see column 4, lines 1-8). In this manner, the top member of the Knurr filter 39, apparently interpreted as providing both the support arm and the cover plate, at best, only has a fluid guide that conveys fluid from the manifold 41 of cooler 14 to the filter 39. Since the filtered fluid discharged from filter 39 is passed into an external conduit provided by flexible

hose 38, the Knurr filter top member does not have a fluid guide that conveys the filtered fluid back to the cooling unit, as recited in claim 12. Additionally, the Knurr cooler only uses a fitting to connect the filter 39 to the manifold 41 of the cooler. Such fitting does not constitute an overhanging support arm, as claimed.

Further, the Knurr patent does not disclose its filter 39 as being attached to that fitting of the Knurr cooler by a cover part coupled to the housing of filter 39. Thus, the Knurr patent does not disclose the specific arrangement recited in claim 12 of the filter unit having a housing coupled to the cover part formed as part of the support arm.

None of the other cited patents and applied cure these deficiencies in the Knurr patent. The Habiger patent is cited for a cover part threaded to a filter housing. However, the Habiger cover part is not part of a supporting arm, particularly one as recited in claim 12. The Pohl patent is merely cited for the use of a fouling indicator. The Goates patent is merely cited in connection with the use of check valves and a thermobypass valve. Thus, none of these patents are cited in connection with the distinguishing features recited in claim 12.

Accordingly, claim 12 is patentably distinguishable over the cited patents.

Claims 13-23, being dependent upon claim 12, are also allowable for the above reasons. Moreover, these dependent claims recite additional features further distinguishing them over the cited patents.

Claim 13 is further distinguishable by the said cooling unit being a plate-shaped, finned radiator and by the filter unit being downstream of the cooling unit, within the overall claimed combination.

Claim 14 is further distinguishable by the support arm extending from a longitudinal side of the finned radiator. As noted above, the Knurr patent does not include a support arm.

Claim 15 is further distinguishable by the box-shaped structure and fan blower recited therein. No adequate evidence is provided to demonstrate the obviousness of these features, particularly relative to the use of sheet metal.

Claim 16 is further distinguishable by the longitudinal shafts with the replenishment and check valve in one and a thermobypass valve in the other. Even assuming the Goates patent discloses a thermobypass valve and a replenishment and check valve, such are not disclosed as being in two longitudinal shafts forming the longitudinal sides of a cooling unit, as claimed.

Claim 17 is further distinguishable by the longitudinal shafts comprising connection sites, within the overall claimed combination.

Claim 18 is further distinguishable by the connection site for a measurement unit.

Claim 19 is further distinguishable by the temperature detection unit.

Claim 20 is further distinguishable by the check valve opening in the direction of a tank.


Claim 21 is further distinguishable by the cover part comprising an inside thread and the filter housing coupled to that thread by its outside thread. The Goates patent relied upon for this feature does not disclose a cover that is formed as part of a support arm, as claimed.

Claim 22 is further distinguishable by the claimed fouling indicator within the overall claimed combination and its location on the cover part attached to a support arm.

Claim 23 is further distinguishable by the support arm projecting laterally from the cooling housing.

In view of the foregoing, claims 12-23 are allowable. Prompt and favorable action is solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Mark S. Bicks", written over a horizontal line.

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